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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,453

09/14/2005

Junichi Ueno

125333

1664

25944

7590

05/11/2007

OLIFF & BERRIDGE, PLC

P.O. BOX 19928

ALEXANDRIA, VA 22320

EXAMINER

ROSE, ROBERT A

ART UNIT

PAPER NUMBER

3723

MAIL DATE

DELIVERY MODE

05/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/549,453

Applicant(s)

UENO, JUNICHI

Examiner

Robert Rose

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3723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14 and 19-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14 and 19-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. Applicant is advised that the Notice of Allowance mailed February 7, 2007 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a specified Deposit Account.

2. Claims 1-10, and 15-18 have been canceled.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11-14, and 19-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant's amendment to independent claim 11, is deemed to render the scope of the claim indefinite, in that there is no upper limit specified in the claim, and higher limits would appear to go against the teachings of the disclosure, which specifies an upper limit of 30%.

5. Claims 11-14, and 19-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new claimed limitation of "more

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than 20%" as a lower limit of acceptable hole size, is deemed to constitute new matter.

Applicant's specification clearly allows for hole sizes smaller than this recited lower starting limit.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-12, 19, 23, 27, and 31-32 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Susumu et al (Japan No. 10180623). Susumu et al discloses a wafer holding carrier and double-sided polishing apparatus comprising all of the subject matter set forth in Applicant's claims above. A plurality of polishing-agent passing holes are distributed over the main surface of the carrier to facilitate delivery to the underside of the wafers being polished. Note figure 3 of Susumu et al wherein the holes lie on concentric circles. While the holes size ratio in Susumu et al is given as .8-20%, it is clear from figure 4 that hole size ratios greater than 20% were produced, although arbitrarily, the cutoff of acceptability was determined to be 20%, based upon tendency for crack formation. It is clear that wafer carriers having hole size ratios of greater than 20% were conceived and/or produced.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 11-14, 19, 21, 23, 25, 27, 29, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susumu et al(Japan No. 10-180623). Applicant's specification is completely silent as to any criticality of the hole size ratio being "more than 20%". It appears from Applicant's specification that values as low as 15% would work equally well as values somewhat greater than 20%. Without evidence to the contrary, such hole size ratio With regard to claim 29, the rate of delivery of polishing agent is regarded as an obvious matter of design choice, which would be readily determined by routine experimentation on the part of those of ordinary skill in the art.

10. Claims 20, 22, 24, 26, 28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Susumu et al(Japan No. 10-180623) in view of Fuminari et al(Japan No. 10-202511). Fuminari et al disclose a double-sided wafer polishing apparatus comprising a wafer carrier moved in a curvilinear translational orbiting motion without rotation. To provide an eccentrically driven carrier in place of the sun and internal gear arrangement in Susumu et al, to deliver a more uniform motion across the wafers would have been obvious in view of Fuminari et al. The Shore A hardness of the polishing pads are regarded as an obvious matter of design choice. With regard to claim 30, the rate of delivery of polishing agent is regarded as an obvious matter of design choice, which would be readily determined by routine experimentation on the part of those of ordinary skill in the art.

11. In view of the new grounds of rejection not necessitated by Applicant's response, this action is not made final.

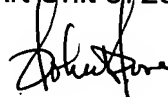
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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Rose whose telephone number is (571) 272-4494. The examiner can normally be reached on Monday through Thursday, and on alternate Fridays, from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail, can be reached at (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Robert Rose
Primary Examiner
Art Unit 3723



Rr

May 9, 2007.